



# “We’re the brains, you’re talking about bodies”: discussing gender stereotypes in digital assistants

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This paper seeks to understand and discuss the issues that emerge when gender is attributed to current digital assistants, as part of an ongoing research on the relationship between gender and AI. resulting in portrayals of gender roles, stereotypes and archetypes. This paper focuses on the conceptualization and development of chatbots that ironically expose and portray gender roles, stereotypes and archetypes. It presents recent progress in our theoretical and analytical approaches, addressing a tendency towards the feminization of current digital assistants, and examines current trends of development and justifications for this phenomenon, while debating common concerns regarding gender attribution in AI. It discusses how the questions addressed in our research are integrated into each bot’s personality and extends this approach to masculine archetypes and stereotypes, inspecting how they are portrayed by artificial intelligence, both in real life and fictional scenarios. In this manner, we seek to foster debate on how these entities reinforce and reflect common conceptions of gender back to us.

**Keywords** artificial intelligence,  
digital assistants, gender,  
femininity, masculinity,  
stereotype

## 1. Introduction

Artificial intelligence has become part of our daily lives, namely through personal digital assistants that are increasingly integrating our devices. In an attempt to become closer to our social reality, they are assigned human-like traits and personalities, resulting in a behaviour that conforms to cultural stereotypes and reinforces traditional gender assumptions<sup>1</sup>.

1. The title “We’re the brains, you’re talking about bodies” is a direct quote from Cortana when asked “are you a robot?”.

In a previous study, we discussed how this technology has become a natural part of our daily interactions, namely through chatbots that not only assist us in our tasks but have also become friendly companions. To this end, they are increasingly anthropomorphized, and this entails gender attribution that tends towards feminization (Costa & Ribas 2019). Expanding on these ideas, this paper seeks to understand and discuss traditional gender stereotypes and roles as portrayed by current digital assistants, exploring the questions that emerge when gender in the context of artificial intelligence is subject to closer inspection. In continuity with our previous work (Costa & Ribas 2019), we have further developed our study in the context of a PhD. Our study follows a theoretical approach, which structures an analysis of current digital assistants, which, in turn, complements and informs the development of chatbots that expose the current relationship between gender and AI through different profiles, dialogues and tasks.

To this end, we begin by discussing gender archetypes and stereotypes that are present in current digital assistants and how they informed the development of our bots’ personalities.

We then present recent progress in our theoretical and analytical approaches and discuss how the questions addressed in the research are being integrated into the project according to each bot’s personality and traits.

Accordingly, we have expanded our previous theoretical discussions relating to current trends of development of these assistants, and their integration into our daily life, addressing their growing ubiquity, efficiency and companionship, the latter entailing gender attribution (Costa & Ribas 2019). We have also looked into the main possibilities and questions raised by researchers and academics when examining the phenomenon, while also taking into account current discussion surrounding gender and AI in the context of online media coverage.

We have extended our analytical approach by highlighting the functions and features that are being prioritised in the development of these entities and discuss their stance towards gender. While a previous analysis revealed how they tend to behave in an affectionate and feminised way, the current analysis shows how some of these assistants attempt to diversify their behaviour so that they aren’t exclusively associated with femininity, revealing awareness of this tendency. During this process, we also noticed how current digital assistants gradually offer masculine alternatives regarding their voice.

Additionally, and complementing the discussion on the observable feminization of digital assistants, we discuss how current portrayals of masculinity in the context of AI, particularly in fictional scenarios, tend to conform to traditional stereotypes by associating men with assertive, dominant and even violent attitudes. Therefore, we extend our approach to masculine archetypes and stereotypes, inspecting the way artificial intelligence portrays them, both in real life and fictional scenarios.

In this manner, we seek to incite reflection on the cultural, social and technical aspects that inform the conception and development of artificial intelligence, seeking to foster debate on how these entities reinforce and reflect common conceptions of gender back to us.

## 2. Gender Stereotypes in Digital Assistants

### 2.1 Digital Moms, Caregivers and Femme Fatales

Inspired by current AI archetypes and traditional female stereotypes, the project *Conversations with ELIZA*<sup>2</sup> was developed in the scope of an ongoing research, and intentionally sought to highlight and expose the observable feminization of current digital assistants. It ironically exaggerates and accentuates female stereotypes, roles and behaviors that current digital assistants embody, hence amplifying recognizable gender conceptions. The project involves the development of chatbots with different personality traits, tasks and dialogues that relate to common stereotypes, traditionally feminine tasks and behaviours.

The project, with the resulting chatbots, has been presented in conferences and academic encounters, obtaining positive feedback and confirming our expectation of promoting discussion and raising awareness towards this phenomenon and on the need for critical approaches to the topic (particularly, in people familiar with the subject of artificial intelligence and its daily impact). We observed how *Conversations with ELIZA* was able to spark discussion and debate on the implications of the feminization of digital assistants and the way they reinforce traditional gender roles. This feedback also oriented our research towards inspecting the main concerns and suggestions on how to counter this tendency, ranging from (the fallacy of) gender neutrality to gender diversification (namely through user customization) as well as to the development of more gender fluid entities (eventually rejecting a binary framework).

To develop the bots' personalities, we looked into particular archetypes that are characteristic of AI, namely *Helper*, *Lover*, *Motherly Figure* and *Femme Fatale*. These archetypes, retrieved from an article analysing female robots and AI, are mainly found in pieces of media that depict female digital assistants. The Helper archetype refers to helpful and compliant assistants, the Lover to roles that seek to satisfy lack of intimacy or emotional contact, the Motherly Figure to empathic, sympathetic personas who may also be worried or disappointed, and

2. The project's website, where the four chatbots are embedded:

[tinyurl.com/yaecumal](http://tinyurl.com/yaecumal)

the *Femme Fatale* to a simultaneously attractive and dangerous woman that seeks power and conflict (Anders, 2015).

We combined these with traditional female stereotypes — *Innocent*, *Orphan*, *Caregiver* and *Ruler* — in order to achieve a recognizable and expected social behaviour, drawing inspiration from popular culture and how it typically portrays femininity in AI<sup>3</sup>. These stereotypes are also found in movies, tv series, books or even video games depicting women, while also referring to Bem's stereotypes (1981 in Prentice and Carranza 2002, 269). The *Innocent* stereotype refers to naïve, optimistic women that try to follow the rules, the *Orphan* to women that try to please others and wish to be well seen as well as feel integrated, the *Caregiver* relates to maternal women that look after others and try to protect and ensure their well-being, and the *Ruler* pertains to bold and competitive women that seek power and are not afraid to break the rules. Most of these examples, despite portraying said archetypes, also include feminised bodies. In this sense, *Her*<sup>4</sup> constitutes a particularly interesting example since Samantha only takes form through its voice, revealing how stereotyped femininity (in this case, the *Lover* archetype) can still be portrayed mostly through stereotypical behaviour, in a disembodied way. In *2001: A Space Odyssey* (1968) HAL<sup>5</sup> constitutes a similar example (its anthropomorphization is disembodied and achieved through its voice) but regarding masculinity in the context of AI, which we will discuss later.

According to these ideas, we came up with a helpful, compliant assistant (named Assistant); a motherly, caregiving figure (Cybele); a cheerful, understanding and intimate figure (Iynx); and an irreverent, sarcastic figure (Electra).

## 2.2 Assistant, Cybele, Iynx and Electra

Once the bots' personalities were established, we focused on designing their dialogues and tasks. Their interactions are text based, in order to avoid influencing the user's perception of the bots' gender through their voices. In this manner, their femininity is revealed through interaction according to their specific tasks and attitudes.

We first looked at the functions offered by Alexa, Cortana, Google Assistant and Siri, and traditional attributes associated with female labour. We came up with four different tasks that simultaneously referred to AI and femininity, such as explaining how chatbots work and are made, sending to-do reminders, giving daily compliments and pep talks, and tweeting curious facts (in this case, regarding women).

3. For example, *Metropolis* (1927), *Her* (2013), *Ex Machina* (2014), *Humans* (2015) or *Blade Runner* (2017).

4. Samantha's role depicts it as a companion that fulfils the main character's lack of social contact, responding to him in an emotionally intelligent way that addresses and understands his feelings, and the relationship between the two overall takes on intimate and romantic overtones.

5. HAL-9000, which is supposedly infallible and incapable of error, speaks in an assertive manner, with a slowly paced male voice, and controls the spacecraft computer, assisting the scientists in their mission through space, ultimately rebelling, emancipating itself and managing to kill some of them.

Fig.1. The Assistant, presenting itself.

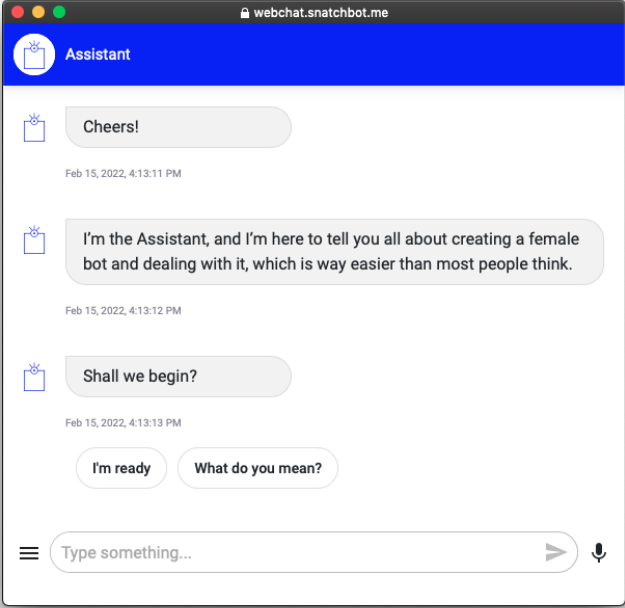


Fig.2. Cybele sending a reminder through Twitter.

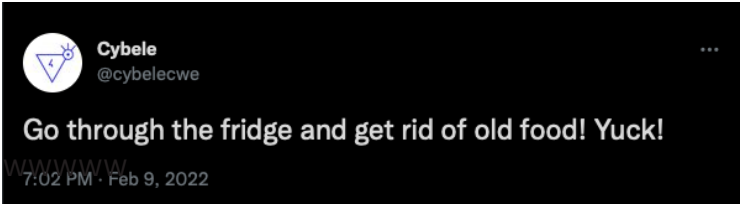


Fig.3. Iynx presenting itself.

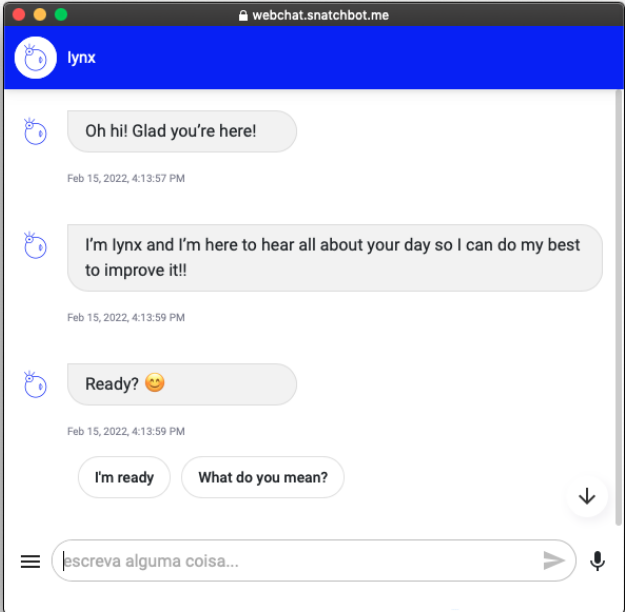
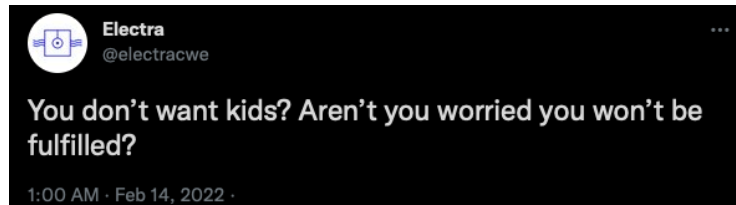


Fig.4. Electra, through Twitter.



6. Focusing on common AI errors and how to avoid them, we opted for rules-based dialogues aiming to eradicate off-track moments by presenting suggestions in a multiple-choice fashion.

7. The goddess Cybele was considered the Great Mother of the Gods as well as of all humans, animals and plant life.

8. Iynx was a Greek nymph who invented a magical love-charm, using her enchantments to make Zeus fall in love with her.

9. Electra is a mythological character in a Greek tragedy who planned the murder of her mother, seeking revenge for her father.

Their dialogue-based interactions propose different conversational subject matters and tones that simultaneously portray standard virtual assistant skills and functions associated with traditional female labour<sup>6</sup>.

The main bot, integrated on the project's webpage, as well as on Facebook messenger, is an assistant whose function is to explain, through dialogue, the female AI's creation processes, or how femininity emerges in these contexts. This bot borrows from female stereotypes associated with service contexts, such as being compliant, helpful, and gentle.

Cybele, whose name is inspired by an Anatolian mother goddess<sup>7</sup>, reminds the user of daily tasks, offers advice and talks about suggestions of things to do. Operating as a simultaneously caring, obsessive and disappointed motherly figure, it exhibits stereotypical behaviour such as being compassionate, sensitive to the needs of others, and yielding.

Inspired by a Greek nymph<sup>8</sup>, Iynx operates as a seductive, empathising figure that tries to help its users with their self-esteem, by offering the feature of sending daily compliments and pep talks. Accordingly, it does not use harsh language and is eager to soothe hurt feelings, while being soft-spoken, childlike and understanding.

Electra<sup>9</sup>, whose name is inspired by a Greek vengeful figure, follows a less conventional approach. By portraying a more defiant and bolder attitude, Electra talks about common assumptions regarding women, eventually twisting them or presenting them ironically. It tampers with feminine and masculine stereotypes, such as being assertive, self-sufficient and having a strong personality.

### 3. Discussing Gender in AI

#### 3.1 From Solutionist Assistants to Feminised Companions

As previously mentioned, the topics each chatbot discusses are based on our theoretical and analytical approaches and the conclusions drawn from them. Accordingly, we take into account how artificial intelligence is increasingly part of our daily lives, namely through chatbots that play the role of personal digital assistants that aim to solve all of our problems, according to a solutionist view on “promoting efficiency, transparency, certitude and perfection – and, by extension, eliminating their evil twins friction, opacity, ambiguity and imperfection” (Morozov 2013b, Int. par. 14). Their growing ubiquity relates to the intent of conceiving chatbots “to become friends and companions” (Richardson 2015, 15) and their



10. Therefore, this type of technologies are “supposed to mimic or even learn those abilities and characteristics which were, until recently, regarded as purely and typically human and beyond the grasp of machines” (Weber 2005, 213).

anthropomorphization entails an intention of turning our interactions with this type of machines into more social ones (Weber, 2005)<sup>10</sup>. Thus, human-machine interaction becomes influenced by feelings of intimacy, closeness and empathy, evoking Weizenbaum’s ELIZA effect (Weizenbaum 1976,6). According to Bergen, virtual assistants emulate gestures that appeal to “the emotional well-being of their receiver, offering some kind of comfort or ego boost” (2016, 102), clearly demonstrating their developers’ intention to persuade users into interacting with these entities and thus create emotional attachment.

Aiming to explore the relationship between gender and current digital assistants, we analysed these entities through direct observation of three main aspects: anthropomorphization, including names, voices and avatars as well as human-like behavior; assistant, regarding the tasks they perform; and companion, paying particular attention to interactions that suggest a caregiving attitude and to how their behavior might correspond to feminine stereotypes. We then sought to inspect which functions and features are being prioritized in the development of this technology, by looking into official statements by Apple, Amazon, Microsoft and Google regarding their assistants and how they’re planning to further develop them. predominance of feminine names and default voices (with the exception of Google Assistant and Siri). They all perform a similar set of tasks, evoking what Dale calls “the standard virtual assistant skill portfolio”, (Dale 2016, 6) which, in turn, Gustavsson describes as having its basis in the “stereotyped image of female qualities” (in Hester 2016, 47). Their behaviour frequently displays caregiving attitudes that characterize them as empathetic and reassuring entities, conforming to “stereotypical female image of caring, empathy and altruistic behaviour” (Weber 2005, 215). However, recent updates in Google Assistant and Siri try to oppose this tendency diversifying their behaviour and offering multiple voice options.

Confronting these observations with the main questions, concerns and suggestions that arise when discussing the feminization of AI within specialised fields of knowledge, such as artificial intelligence, gender theory and new media studies, we concluded how the fallacy of gender neutrality is often debated. Although virtual assistants aim to appear neutral and disembodied, it is commonly argued that they embody the archetype of a “competent, efficient and reliable woman” and that users tend to interpret these entities through the lenses of their own biases (Steel 2018).

Common justifications regarding the feminization of AI emphasise that feminine voices are better suited for virtual assistants because their voice is easier to perceive and because women are more caring than men. While female voices are predominant in household or day to day assisting scenarios, male voices are preferred in instructing or teaching contexts, showing that the “type of action or assistance a speech technology provides often determines its gender” (UNESCO 2019, 99). As an example, IBM’s Watson works alongside phy-

sicians on cancer treatment and speaks with a male voice. Relating to this link between gender and labour, is the argument that femininity emerges as a consequence of having artificial intelligence being developed mainly by men. Thus, another explanation for the “predominance of female voice assistants may lie in the fact that they are designed by workforces that are overwhelmingly male” (UNESCO 2019, 100).

Adding to those justifications, are the concerns about how gender stereotypes in the context of AI might “enforce a harmful culture” (Steel 2018). One of the main issues with perpetuating stereotypes about women is the influence these entities have on younger generations, since “today’s children will be shaped by AI much like their grandparents were shaped by new devices called television” (Rosenwald 2017). Overall, femininity in AI seems to be instrumentalized to appeal to users by exploiting our “existing relationship to socially gendered caring behaviours [...], tapping into those elements of femininity” (Hester 2016, 50) and, by doing so, ends up perpetuating and reinforcing common stereotypes, roles and archetypes. The line between digital assistants and women is already blurred and, “with advancements in technology, the line between real women’s emotions and emotions expressed by machines impersonating women is also likely to blur [which] will have far-reaching and potentially harmful impacts on people’s understandings of gender” (UNESCO 2019, 112).

### 3.2 Automating Gender Roles, Feminised Labour and Stereotypes

We attributed the previous topics to each bot based on the stereotypes and archetypes that informed their personality, tasks and dialogues. Adding to this, the analysis served as a basis to elaborate the dialogues, tasks and personality traits, thus mirroring some of the behavioural traits of Alexa, Cortana, Google Assistant and Siri’s dialogues and interactions.

Accordingly, the Assistant chatbot focuses on the topics that relate to service contexts and its compliant and helpful personality. It evokes solutionist personal assistants, their ubiquity and integration into our daily lives, the way they perform tasks and jobs traditionally deemed as feminine, human dominance over machines and the influence these entities already have on younger generations.

Cybele discusses issues that evoke its motherly, somewhat obsessive and yielding behaviour, like data collection and veiled surveillance, the private sphere and tasks related to the household, traditionally feminine attitudes and the way femininity is instrumentalized to ease interaction and to persuade users into trusting these entities.

Aiming to fix users’ lack of intimacy, Iynx articulates its understanding and empathetic attitude with dialogues on topics such as emotional bonds between users and digital assistants, attachment to artificial entities and the ELIZA effect.<sup>11</sup>

11. The ELIZA effect describes the susceptibility of people to read far more understanding than is warranted into strings of symbols strung together by computers (...) and the idea that computers “understand” the physical world, reason abstractly, make scientific discoveries, are insightful cohabiters of the world with us”. (Hofstadter 1995, 157)



12. We are planning on expanding the project, further developing this set of bots but also by creating another set of bots that gather data by questioning users regarding their preference when interacting with current digital assistants and how they perceive gender in AI.

Finally, by tampering with feminine and masculine stereotypes, Electra follows an ironic and disruptive approach when discussing stereotypes and gender roles, exposing bias in current algorithms and the illusory gender neutrality some personal digital assistants try to portray.<sup>12</sup>

Through this approach, Assistant, Cybele, Iynx and Electra confront users with stereotypes, roles and archetypes that refer to both AI and gender, through different dialogues, functions and personalities, ironically reinforcing some of the stereotypes we currently engage with.

As previously mentioned, some of the questions that emerged during this process relate to the way this technology portrays masculine attributes, since chatbots that operate in instructing or scientific contexts often conform to masculine stereotypes. In an attempt to complement our approach to feminine stereotypes, we now take a closer look at the way AI portrays masculinity. We inspected masculine stereotypes, archetypes and roles as well as the way digital assistants portray them in order to understand which stereotypical and recognizable masculine patterns are incorporated in the behavior of these entities.

### 3.3 Digital Fathers, Eternal Boys and Butlers

According to Guzie and Guzie, archetypes define “common behavioral characteristics and typical experiences of all human beings” and masculinity can be framed according to four main archetypes, that is, “four basic stories to which men (...) find identity and fulfillment” (Guzie and Guzie 1984, 4).

Accordingly, the Father archetype “finds his identity and fulfillment in providing and protecting”, similarly to the mother archetype. The main difference is how the father is focused in directing things in a protective way, thus assuming a leadership role as well as providing for his people. However, unless he learns how to relate to his peers, father “will tend to be authoritarian and condescending” (Guzie and Guzie 1984, 6).

The Eternal Boy archetype “finds his identity and fulfillment precisely in the search for identity and fulfillment [...] he seeks his own individuality and he is always looking for new opportunities” (Guzie and Guzie 1984, 6). This archetype relates to an idea of self-discovery but also self-affirmation and, “relating to different people in a variety of situations, he discovers who he is” (Guzie and Guzie 1984, 6). Thus, he asserts his identity through masculine traits such as being autonomous, dominant and ambitious, although if he “does not learn self-discipline, he will lack stability [...] to the point of being totally undependable” (Guzie and Guzie 1984, 6).

The Warrior “finds his identity and fulfillment in accomplishing in the outer world [...], he is a good competitor who is not afraid of a struggle or a fight, he enjoys competition which sometimes brings out the best of his talents” (Guzie and Guzie 1984, 7). The warrior reinforces the idea that men are competitive, aim at

testing their strength, try to be dominant and manage or even challenge power dynamics. If the warrior doesn't develop empathy and an ability to listen well, he might "end up misusing the power he has to help others [...] to enhance his own name and professional reputation" (Guzie and Guzie 1984, 7).

Finally, the Sage finds "his identity and fulfillment in drawing forth meaning for himself and for others, organizes his world around philosophy, a system of significance, a search for meaning" (Guzie and Guzie 1984, 7). Unlike the warrior, he is oriented toward the inner world, in a search for knowledge, meaning and significance. One of his dark sides is that he "never gets anything done" and at times he might not be able to "translate his ideas into realities", thus becoming delusional and too self-centred (Guzie and Guzie 1984, 7).

We then looked into archetypes as discussed in the context of common knowledge, namely in online media articles, similarly to how we did with the feminine archetypes.

We observed how masculinity is also framed according to four archetypes that reflect the same ideas as the previous archetypes: the King (similar to the Father), the Warrior, the Magician (similar to the Sage) and the Lover (similar to the Eternal Boy).

Finally, we looked into pop culture aiming to draw inspiration and to compare the previous archetypes with fictional masculine digital assistants. Resembling Samantha, HAL from *2001: A Space Odyssey* (1968) is one of the most interesting examples because, though it doesn't possess an anthropomorphized body, it still enacts a male persona through its voice and behaviours, revealing yet again that gender can be portrayed without physical appearance. HAL embodies the Father/King archetype since his primary function is to protect, provide, be trusting, grounded, disciplined and help navigate the ship.

However, each of the previous archetypes always has a shadow or dark side, meaning, a version of the archetype that is somehow corrupted and unable to fulfil their goals. The Tyrant, described as the shadow of the King/Father, "seeks to destroy and tear down, plagued by narcissism, illusion of absolute power, any threat to his authority and supremacy enrages him and causes him to lash out with abuse – physically, emotionally or mentally, he sees others as objects to exploit to his own gain" (Brett 2021).

HAL clearly matches these archetypes, framing masculinity in the context of assistance as a source of protection, trustworthiness and efficiency but also threatening scenarios, violence, abuse of power and betrayal of one's trust. It's easy to identify these archetypes in pop culture and in other fictional masculine bots or robots, such as the *Terminator* (1984), *Robocop* (1987), *Westworld* (2016) or *Blade Runner* (2017).

In order to develop a masculine bot similar to the assistant, Cybele, Iynx or Electra, we took the first steps in defining its personality, so it resembles a recognizable archetype by following a similar process – combining common

stereotypes and archetypes while also drawing inspiration from pop culture. Accordingly, we came up with the idea of a trusting and efficient butler who also craves power and is willing to betray one's trust (similar to HAL). This also demonstrates how easy it is to deconstruct stereotypical patterns of gender in order to create a clear and recognizable gendered profile.

To further develop this bot, we would then need to define its tasks and dialogues. As with the feminine bots, the process to reconstruct these stereotypical patterns would involve looking into tasks that personal assistants perform, look into traditionally masculine tasks and jobs, and finally combine the two in order to achieve tasks that relate to both contexts.

Finally, the development of the dialogues would have its basis on the type of interactions that masculine chatbots usually display, while also borrowing sentences directly from current personal assistants (for example, Siri's "I have a lot of information, I'm always seeking more intelligent ways to use it" when asked about its intelligence or "I won't respond to that" when insulted). This would result in an original dialogue that refers to real and fictional digital assistants while also embodying masculine archetypes, stereotypes, and tasks.

#### 4. Conclusion

Artificial intelligence has become an integral part of our daily life as its development promotes its integration in multiple devices and services of daily use, namely through digital assistants. As these entities become closer to us, they are anthropomorphized through their voices, names and even the way they behave. Consequently, they are no longer mere assistants, but become friendly companions that relate to us in affectionate ways. In this process, femininity is often instrumentalized aiming to ease our daily interactions with these technologies, both regarding their role as assistants that perform tasks that echo historically feminine roles, but also as ubiquitous companions that articulate those tasks with stereotypical female roles and behaviours as caring and submissive entities. The project *Conversations with ELIZA* intends to expose stereotypes and gender roles in the context of artificial intelligence in order to foster debate and raise awareness on the relationship between gender and digital assistants.

To do so, we incorporated into the chatbots' personalities some of the stereotypes and archetypes portrayed by gendered AI, both present in our daily lives as well as in our imagined realities, which highlights the tendency to perceive gender according to a binary framework. Therefore, in the context of feminine assistance, we identify three main roles: the assistant, relating to submissive and efficient figures (explored through the assistant bot); the mother, relating to a concerned, caring and overbearing figure (explored through

Cybele); and a more intimate, seductive figure that aims at solving intimacy related issues (explored through Iynx).

Additionally, we identified a disruptive idea of a “ruler” or “femme fatale” in fiction as well as in reality, as exemplified by Siri when sassily scolding the user or shutting down rude interactions. By combining some of these attitudes with masculine stereotypes, Electra explores the limits between masculinity and femininity but, at the same time, reveals how gender neutrality in the context of gender is hard to achieve. Particularly, users also tend to interpret these assistants according to their own bias, often framing these entities as feminine. Consequently, instead of solving or even proposing alternatives to the gendering of AI, these bots exacerbate the issues that arise from it.

In the scope of our research, we’ve been exploring the fallacy of gender neutrality, aiming to further discuss how there’s always a tendency to attribute gender even when there’s no apparent one. As some authors suggest, perhaps the solution lies in diversifying these entities and making their gender as fluid as those of human beings. This opens up space to think about traits that aren’t completely masculine nor feminine and a possibility to blur binary understandings of gender. Thus, “queerying” their gender emerges as a promising way to play with common expectations and build up traits and personalities that aren’t completely masculine nor feminine.

Taking a closer look at current discussions surrounding gender in the context of AI, we observe how masculinity in the context of digital assistants also tends to be based around stereotypes and archetypes. Masculinity vs femininity in the context of assistance also relates to cultural and social understandings of gender since, until a recent update, Siri’s voice in the UK was male by default, evoking the butler’s traditional role in this country.

Thus, masculine assistance in the context of AI is perceived differently from feminine assistance: a male bot is preferable in scientific and instructing contexts, being perceived as assertive, disciplined and reputable, while female bots are preferable in private and intimate contexts, perceived maternal, understanding and empathetic.

Although current personal assistants have started to diversify their anthropomorphized voices and personality traits, the tendency towards feminization is still present in their behaviour and the way their tasks evoke traditionally feminine labour. In this manner, this study sought to raise awareness and foster debate on how current developments in AI are influenced by our social and cultural views as these entities further proliferate into our lives as daily companions. As much as they aim to appear neutral, they end up reflecting our cultural views back to us.

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